



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,819	03/30/2001	Akio Tanaka	P 280082 U3-0109-RH	4490

7590 10/23/2002

PILLSBURY WINTHROP LLP
1600 TYSONS BOULEVARD
MCLEAN, VA 22102

EXAMINER

TUNG, TA HSUNG

ART UNIT	PAPER NUMBER
----------	--------------

1743

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,819

Applicant(s)

TANAKA

ETAL

Examiner

T. TUNG

Group Art Unit

1743

Paper No. 6

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-11 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-11 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☒ All ☐ Some* ☐ None of the:
 - ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Art Unit: 1102

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Hasei et al 6,319,377 or Kato et al 5,928,494.

Figure 1 of the instant drawings represents an admittedly old gas sensor. The figure shows applicant's basic sensor including four cells. One of the cells measures the EMF between the sample gas and a reference gas by way of a voltage measuring device V4. The electrodes of this cell are located on different solid electrolyte plates. Applicant's claims differ by calling for the electrodes of this cell to be on a same surface of an electrolyte plate.

Hasei discloses electrodes 4a and 5 of a cell located on the same surface of a solid electrolyte plate. See figure 1 and the paragraph connecting columns 4 and 5. Kato discloses electrodes 45 and 46 of a cell located on the same surface of a solid electrolyte plate. See figure 3; col. 7, lines 17-26.

It would have been obvious to modify the admittedly old sensor of instant figure 1 by arranging electrodes of the cell with a measuring device V4 on the same side of a solid electrolyte plate in view of Hasei or Kato. Such a configuration would minimize the risk of electrical interference with other cells as well as provide a streamline design.

Art Unit: 1102

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Hasei etal or Kato etal and Shibata etal 4,882,033.

This claim further differs by calling for an alumina plate between two cells.

Shibata discloses an alumina insulating plate 6, 32 separating two cells of a solid electrolyte sensor. See col. 6, line 27 and col. 8, line 65. It would have been obvious to add an alumina insulating layer between two cells of the admitted old sensor of instant figure 1 so as to minimize the risk of electrical interference between them.

Claims 3 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, lines 6-7, "in and out to and from" does not read correctly.

Claim 11, lines 22-23, "second reference gas chamber is disposed to be exposed to the first and second chambers...." is vague. The second reference gas chamber is presumably chamber 14. It is unclear how chamber 14 is exposed to the first chamber 11 or the second chamber 12, since electrolyte plate 55 blocks such exposure.

The examiner can be reached at 703-308-3329. His supervisor Jill Warden can be reached at 703-308-4037. Any general inquiry should be directed to the receptionist at 703-308-0661. A fax number for TC 1700 is 703-872-9310.

Application/Control Number: 09/820,819

Page 4

Art Unit: 1102

A handwritten signature in black ink, appearing to read 'Ta Tung', with a stylized flourish at the end.

Ta Tung

Primary Examiner

Art Unit 1743